The Distribution of an Impurity in a Single Crystal   SOV/20-123-3-30/54
of Metallic Zinc of Honeycomb Substructure

the distribution of copper over the substructure elements. The
diagram shows a sharp increase of the copper content from the
boundary to the center of the fiber (honeycomb). According to the
results of a quantitative analysis, the copper content amounts
to 0.7% in the center and to 0.4% on the boundary. The results
of this paper convincingly confirm the general theory that an
admixture which raises the melting point of the metal is
concentrated in the center of the substructure cells and that the
X-ray spectral method of investigating the chemical composition
of matter in a microvolume can be used for the investigation of
this interesting phenomenon. The authors thank L. Ye. Loseva, who
investigated the distribution of copper by means of the apparatus
RSASh-2, and also M. Bočák and P.Kratochvíl who prepared the
zinc single crystals. There are 2 figures and 4 references, 2 of
which are Soviet.

ASSOCIATION: Prazhskiy universitet (Prague University) Kafedra fiziki metallov
               (Chair for the Physics of Metals),Institut metallurgii im.
               A. A. Baykova Akademii nauk SSSR (Institute for Metallurgy imeni
               A. A. Baykov of the Academy of Sciences, USSR)
PRESENTED: July 10, 1958, by I. P. Bardin, Academician
SUBMITTED: July 7, 1958
Card 2/2

JELINEK, Milos; VALOUCH, Miloslav; FUKSA, Josef; ZEDEK, Miloslav

Report of the meeting of the Central Committee of the Association
of Czechoslovak Matematicians and Physicists held in Prague on
November 2, 1960.

VALOUCH, Miloslav

National and international organizations of physicists.
Pokroky mat fyz astr 6 no.1:35-45 '61.

VALOUCH, Miloslav

Anniversary of the Association of Czechoslovak Mathematicians and Physicists. Porcky mat fyz astr 7 no.1:8-14 '62.

1. Fyzikalni ustav Karlovy university, Ke Karlovu 5, Praha 2.

VALOUCH, M.

Centennial of the foundation of the Society of Czechoslovak Mathematicians and Physicists.   Cs cas fys 12 no. 2:99-103 '62.

1. Fysikalni ustav university Karlovy, Praha.

VALOUCH, Miloslav

Report on the anniversary meeting of the Association of Czechoslovak
Mathematicians and Physicists. Vestnik CSAV 71 no.4:418 '62.

VALOUCH, Miloslav

Program of activities of the Association of Czechoslovak
Mathematicians and Physicists in 1963. Pokroky mat fyz
astr 8 no.1:45-48 '63.

VALOUCH, Miloslav (Prague)

Experiments in modernization of teaching physics abroad. Pokroky
mat fyz astr 9 no.2:99-112 '64.

VALOUCH, M.

Annual conference of Czechoslovak physicists in Olomouc, August 1964. Pokroky mat fyz str 10 no.1:1-3 '65.

VALOUSEK, M.

"A Periodic Snow Pool as A Biotope."   p. 411.   (Prace.
Vol. 23, No. 137-260, 1951, Brno.)

Vol. 3, No. 3.
SO: Monthly List of East European Accessions, Library of Congress, March 1954, Unel.

S. VALOUSEK

CZECHOSLOVAKIA / Chemical Technology, Chemical Prod-   H
                 ucts and Their Application, Part 2. -
                 Ceramics, Glass, Binders, Concretes. -
                 Binders, Concretes and Other Building
                 Materials.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61758.

Author   : S. Valousek.
Inst   : Not given.
Title   : Modernization of Cement Fabrication.

Orig Pub: Stavivo, 1958, 36, No 2, 54 - 57.

Abstract: A review of measures for the modernization of
          separate stages of cement fabrication is car-
          ried out. Questions concerning the development
          of the raw material transportation, the prepa-
          ration and milling of materials, the homogen-
          izing of the mixture, the firing, the clinker

Card 1/2

CZECHOSLOVAKIA / Chemical Technology, Chemical Prod-   H
ucts and Their Application, Part 2. -
Ceramics, Glass, Binders, Concretes. -
Binders, Concretes and Other Building
Materials.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61758.

Abstract: and addition milling, the control of the prod-
uct properties, the transportation within the
factory, the automatization of production, the
electric equipment and the effective dust re-
moval are discussed.

Card 2/2   43

VALOUSEK, S.

Transportation of materials at limekilns. p. 343. STA IVA.
(Ministerstvo stavebnictvi) Praha. Vol. 32, no. 10, Oct. 1954.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

Polishing diamond. A. A. Valov *Optiko Mekhan Prom.*, 8 [8] 18-19 (1938); *Chem Zentr.*, 1939, II, 2438-50, *Ind. Diamond Rev.*, 8 [80] 22 (1948). According to the theory of I. V. Grebenschikov, the polishing of hard materials is chiefly a chemical process. Experiments by Valov and Grebenschikov on the polishing of diamond on plain cast-iron disks are described. The first test led to an improved method with which fine diamond edges for Gemazitometers were successfully produced. Some cutters have cut 800 gratings with a total of 720,000 lines and are still in use.   P.G.

Effect of ammonium concentration in silver solutions
on the silvering of glass. B. N. Moskvin and A. A. Valov.
Optiko-Mekhan. Prom. 5, No. 9, 14-17(1938).   The concn.
of NH₃ in the soln. in silvering with invert sugar as re-
ducer affects the rate of reduction. The greater the concn.
the larger the grain structure of the silver deposit formed.
M. V. Condoide

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

18.4060   1208

32601
S/137/61/000/011/034/123
A060/A101

AUTHORS: Valov, A.N., Latyshev, V.K., Lyndin, V.V., Pliskin, Yu.S.

TITLE: Application of radiometric transducers in systems for regulating
the level of molten metal in crystallizers of continuous casting
machines

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 67, abstract
11V392 (V sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve
SSSR. v. 3", Moscow, Gostoptekhizdat, 1961, 147 - 149)

TEXT: The authors describe the principle of operation of a level regulator.
The sensor is in the form of a source and receiver of radioactive radiation, which
are situated on the opposite sides of the object of measurement. The source is
Co^{60} and the receiver is a gaseous ion counter of the type $CH-1\Gamma$ (SI-1G). A
short description is given of the system of automatic control for the level of
the molten metal in the crystallizer of a vertical machine for the continuous
casting of steel in ingots of small cross section at the plant imeni the First of
May; of a machine for semi-continuous casting of cast iron tubes of the Sinarskiy
tube factory; of a machine installed at the Bezhitsa plant. In all the cases

Card 1/2

Application of radiometric transducers ...

32601
S/137/61/000/011/034/123
A060/A101

the regulation proceeds by acting upon the rate of drawing out the article being cast. At the Novo-Tul'skiy metallurgical plant a system was tried out for the automatic regulation of the metal in the crystallizer by varying the quantity of metal fed into the crystallizer.

Yu. Nechkin

[Abstracter's note: Complete translation]

Card 2/2

S/137/61/000/011/096/123
A060/A101

AUTHORS: Vasichev, B. N., Valov, A. N., Pliskin, Yu. S.

TITLE: Measurement of small radioactive metal samples

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 36, abstract
              11I247 (V sb. "Radioakt. izotopy i yadern. izlucheniya v. nar. kh-ve
              SSSR V. 3", Gostoptekhizdat, Moscow, 1961, 210-213)

TEXT: The authors set forth the principles of construction of an apparatus
for measuring small radioactive samples of metal. Gas ionization counters have
a counting efficiency of $\sim 1\%$ at a γ-quantum energy level of 1 Mev. When the
specimen is completely encompassed by the radiation detector ($\Omega = 4\pi$), an in-
crease in the counting efficiency may be attained by raising the number of
counters encompassing the specimen, but this leads to a reduction in the relia-
bility of the apparatus and to an increase of background. Greater possibilities
are provided by the use of scintillation counters possessing a high counting
efficiency. One of the best scintillants is NaI, activated with Tl. In the
apparatus worked out scintillation counters were used as the radiation detectors,
utilizing large NaI(Tl) crystals (d = 90 mm, L = 85 mm) and ФЭУ-24 (FEU-24)

Card 1/2

Measurement of small radioactive metal samples

S/137/61/000/011/096/123
A060/A101

photomultipliers. The scintillation counting efficiency of the NaI(Tl) crystal of indicated dimensions constitutes $\sim 80\%$ in registering the γ-radiation of Co^{60}. The apparatus uses a circuit with two $2\hat{\iota}$-counters with a disk-shaped specimen between them and a delay for the pulses of the second $2\hat{\iota}$-counter. The use of two $2\hat{\iota}$-counters makes it possible to increase the count from the specimen, and the use of the delay - to select the upper threshold of discrimination corresponding to an energy of 1.4 Mev. Sources of background in the scintillation counter may be dark noise of the photomultiplier, radioactive impurities, the natural radioactivity of the materials, and cosmic radiation. Various methods of background-suppression are described. It is pointed out that the apparatus may be used for determining the activity of samples of metals containing the isotopes Co^{60}, Ru^{103} and others. To check the stability of operation of the apparatus, the counting rates from a specimen containing the Co^{60} isotope were measured for 8 hours. The photomultiplier was fed from a high-voltage rectifier of the counting circuit "Floks". The counter and the electronic block of the apparatus were connected to the power grid through a ferroresonant voltage-stabilizer of the СЭИ-220-0.5 (SEI-220-0.5) type. The apparatus elaborated makes it possible to carry out the radiometry of metal specimens having a specific radioactivity 5 times lower than that admissible according to (USSR) sanitary norms. [Abstracter's note: Complete translation]

Z. Fridman

Card 2/2

PLISKIN, Yuriy Semenovich; VALOV, Aleksandr Nikolayevich; TARSHIS,
D.M., red.izd-va; ISLENTIYEVA, P.G., tekhn. red.

[Methods and equipment for measuring low radioactivity
in metal and slag specimens] Metody i apparatura dlia iz-
mereniia malykh radioaktivnostei prob metalla i shlaka.
Moskva, Metallurgizdat, 1963. 132 p.   (MIRA 16:9)
     (Metallurgy)   (Radiometry)
     (Radioisotopes--Industrial applications)

AUTHORS: Rumyantseva, G.V., Valov, A.N.

TITLE: Electromotive forces and electrode potentials in flux-fusions

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 1, 1963, 35 - 38

TEXT: Electrode potentials of Zn, Sn, and Fe dissolved in $ZnCl_2 \cdot 2NaCl$ fusions were measured at temperatures of from 450 to 600° C and the emf of galvanic cells Fe/flux-fusion/Sn determined at 320° C in dependence on the composition of the flux-fusion. Decomposition potentials of pure fused Zn, Sn, and Fe chloride were calculated from thermodynamic literature data in dependence on temperature. The sequence of the metals changes in the temperature interval 578 - - 1,373° K. Up to 1,150° K the sequence is Zn, Sn, Fe, while at 1,150° K and above the sequence is Zn, Fe, Sn. The present investigations are of interest for electrolytic tin-plating of sheet iron which method is sometimes more suitable than the common hot method. The potential measurements were carried out with a sodium/ /tin glass-electrode as reference electrode in inert gas atmosphere. The emf was measured by means of an MПO 2 (MPO2) oscillograph. The following observations

Card 1/2

Electromotive forces and electrode potentials in S/073/63/029/001/006/009
A057/A126

were made with the cell Na-Sn/glass/ZnCl$_2$ · 2NaCl-MeCl$_x$/Me, where MeCl$_x$ stands
for FeCl$_2$/Fe(+), SnCl$_2$/Sn(+), or ZnCl$_2$/Zn(+): The electrode potentials of iron
and tin are equal (1.77 v) at 450°C. The potential of the latter is more influ-
enced by the temperature. Thus the potential of tin at 470°C and above becomes
more negative than the potential of iron. Measurements of the emf in 6 different
cells with varying flux-fusion composition are in good agreement with data calcu-
lated from the potentials of the pure fused chlorides for the sequence Zn, Sn, Fe.
The sign of the electrodes and the change of the emf depend on the composition of
the flux-fusion, apparently due to complex-formation. There are 2 figures and 1
table.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii
(Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED: September 30, 1960

Card 2/2

MURATOVA, M.A.; YAKUBENKO, Z.K.; VALOV, B.I.

Investigating jute and hemp fiber emulsifying processes. Tekst.
prom. 18 no.10:26-30 O '58.   (MIRA 11:11)
(Hemp)   (Jute)   (Textile chemistry)

VALOV, B.I., nauchnyy sotrudnik; SOBOLEV, S.V.

Simplified method for making rope yarn. Tekst.prom.
20 no.6:25-27 Je '60.   (MIRA 13:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut l'nyanogo
volokna (for Valov). 2. Vedushchiy inzhener TSentral'nogo
Konstruktorskogo byuro tekstil'nogo mashinostroyeniya (for
Sobolev).
        (Rope) (Spinning)

ZAV'YALOVA, L.V., mladshiy nauchnyy sotrudnik; Prinimali uchastiye:
    MARKOVA, R.V.; VALOV, B.I., mladshiy nauchnyy sotrudnik

    Continuous line for the preparation of short jute fibers for
    spinning. Nauch.-issl.trudy TSNIILV 17:98-113 '62.   (MIRA 16:10)

    1. Vsesoyuznyy nauchno-issledovatel'skiy institut legkogo i
    tekstil'nogo mashinostroyeniya (for Markova). 2. TSentral'nyy nauchno-
    issledovatel'skiy institut promyshlennosti lubyanykh volokon,
    Moskva (for Valov).

137-58-5-10971

VALOV, G.G.

AUTHORS: Valov, G.G., Dobrzhanskiy, A.V., Zhukhovitskiy, A.A.

TITLE: Analysis by Beta-ray Reflection (Analiz metodom otrazheniya β -izlucheniya)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1956, Vol 4, pp 22-29. Comments pp 30-31

ABSTRACT: A description is presented of an instrument for analysis of the percentage content of heavy elements by β-ray reflection. When radioactive radiation passes through a substance, the interaction of β particles with the atomic nuclei of the substance causes the particles to be deflected from their original direction. The intensity of the reflected β radiation (RI) is approximately proportional to $Z^{2/3}$, where Z is the charge on the nucleus or the atomic number of the element. Consequently, the RI may be employed to judge the composition of the substance. Tl^{204}, with a half life of 2.7 years, is used as a source of β radiation. 20 millicuries of Tl^{204} are placed on the bottom of a Pb cup which directs the beam of electrons (E) upward onto the specimen under investigation. The reflected E pass through a filter to an

Card 1/3

137-58-5-10971

Analysis by Beta-ray Reflection

ionization chamber with a cylindrical tinplated brass body 300 mm in diameter and height. The collecting electrode, in the form of a centrally-positioned pin, is introduced into the chamber through a polystyrene insulator and is under a potential of $+300$ v relative to the housing. The thickness of the filter is selected experimentally so that the majority of the E reflected from the heavy element will pass through it, and the E reflected from the rest of the substance will be retained therein. The result may thus be attained that the magnitude of the RI is in linear relation to the content of heavy element. The RI passing through the filter ionizes the air in an ionization chamber. The resultant weak ionizing current is amplified and delivered to a galvanometer. To prepare the specimen, 10 or 20 g of the material, reduced to powder for analysis in the usual way and screened through a 100-mesh sieve, is sifted into a metal adapter, the bottom of which may be made of any material transparent to β rays, e.g., tracing cloth. The powder is gently packed by tapping the adapter against the table. Analysis is performed either by plotting a graduated curve against standard specimens or by comparison with a standard. The method has been used specifically for determination of Fe in Fe ore and of W in high-speed steel. The employment of this method in analysis of Fe ore shows that its accuracy corresponds to that of rapid chemical analysis, but the time is reduced to 1.5 - 2.0 min. The method is simple in execution and

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Analysis by Beta-ray Reflection

137-58-5-10971

does not consume any reagents whatever. The instrument is compact and can be used anywhere. The immediate and prospective value of this new method are noted in the discussion.

1. Beta rays--Reflection   2. Heavy elements--Analysis   T.M.

Card 3/3

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 108 (USSR)

SOV/124-57-7-8159

AUTHOR: Valov, G. M.

TITLE: The Bending and Torsion of a Rectangular Beam Loaded on a Side Surface (Izgib i krucheniye pryamougol'noy balki, nagruzhennoy na bokovoy poverkhnosti)

PERIODICAL: V sb.: Tr. nauch. konferentsii Stalinskogo ped. in-ta. Nr 1. Kemerovsk. kn. izd-vo, 1956, pp 302-307

ABSTRACT: The author discusses the possibility of the solution of a problem of the bending and torsion of a rectangular parallelepiped by forces applied to its side surface with the help of Fourier double series; the coefficients in these series must be determined from infinite systems of linear equations.

B. K. Prokopov

Card 1/1

124-58-6-6940

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 97 (USSR)

AUTHOR: Valov, G.M.

TITLE: On the Equilibrium of a Rectangle Under Mixed Boundary Conditions (K zadache o ravnovesii pryamougol'nika pri smeshannykh granichnykh usloviyakh)

PERIODICAL: V sb.: Issledovaniya po teorii sooruzheniy. Nr. 7. Moscow, Gosstroyizdat, 1957, pp 401-411

ABSTRACT: A study is made of two cases of the two-dimensional problem of the theory of elasticity as applied to a rectangle having mixed boundary conditions, these conditions being symmetrical with respect to either axis of symmetry of the rectangle. In the first problem, normal stresses and displacements are given along two edges of the rectangle, parallel to each other, the other two edges being unstressed. In the second problem, on two parallel edges the displacements are given, the other two sides again being unstressed. The problems are solved by the Fourier method. In the first problem the constants of integration are determined directly. As a numerical example the author examines the problem of the compression of a square by a uniform load. In the second

Card 1/2

124-58-6-6940

On the Equilibrium of a Rectangle Under Mixed Boundary Conditions

problem, determining the constants of integration amounts to solving infinite
systems of linear equations. For this problem no numerical example is given.
The author does not mention the paper by V.K.Prokopov (Prikl. matem. i
mekhan., 1952, Vol 16, Nr 1) which deals with the two-dimensional problem
of a rectangular strip the short edges of which are free of displacements.

B.L.Abramyan

1. Elasticity--Mathematical analysis

Card 2/2

VALOV, G.M., Cand Phys Math Sci -- (diss) "Certain

problems concerning the elastic deformation of

a triangular rectangular parallelepiped and circular

cylinder." Mos, 1958, 6 pp (Mos Order of Lenin and

Order of Labor Red Banner State Univ im M.V. Lomonosov)

150 copies (KL, 50-58, 119)

- 5 -

16(1) 16,7300

AUTHOR: Valov, G.M.   SOV/155-58-4-14/34

TITLE: Torsion of a Rectangular Bar by Forces Acting on its Lateral
               Face (Krucheniye pryamougol'nogo sterzhnya silami, priloz-
               hennymi k yego bokovoy poverkhnosti)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye
               nauki, 1958, Nr 4, pp 81 - 86 (USSR)

ABSTRACT: The author considers the torsion of a rectangular bar which
               is stressed so that its deformations are symmetric with
               respect to the plane which is laid through the center of the
               bar vertical to the bar axis. The problem is to determine the
               displacements u, v, w which in $-a \leqslant x \leqslant a$, $-b \leqslant y \leqslant b$,
               $-c \leqslant z \leqslant c$ satisfy the homogeneous Lamé equations

               $$\frac{1}{1-2\sigma} \frac{\partial \Theta}{\partial x} + \Delta u = 0 \quad \text{etc for } v \text{ and } w, \text{ and 18 boundary con-}$$

               ditions on the bar surface, e.g.

Card 1/3

Torsion of a Rectangular Bar by Forces Acting on its Lateral Face
<div style="text-align:right">SOV/155-58-4-14/34</div>

$$2G \left(\frac{\partial v}{\partial y} + \frac{\sigma}{1-2\sigma}\, \theta \right) = \pm f_1(x,z) \quad \text{for} \quad y = \pm b$$

$$G \left(\frac{\partial v}{\partial z} + \frac{\partial w}{\partial y} \right) = \varphi(x,z) \quad \text{for} \quad y = \pm b$$

$$G \left(\frac{\partial v}{\partial x} + \frac{\partial u}{\partial y} \right) = 0 \quad \text{for} \quad y = \pm b \quad \text{etc.}$$

Here θ is the volume deformation, Δ the Laplace operator, σ Poisson coefficient, G modulus of shear. It is assumed that the functions f_1, φ etc. which are even because of the symmetry, can be represented by double Fourier series

$$f_1(x,z) = \sum_{\substack{n=1,3,\dots \\ p=0,1,\dots}}^{\infty} \lambda_p\, f_{np}^{(1)} \sin \frac{n\pi z}{2l} \cos \frac{p\pi x}{a}$$

The author uses the solution of Papkovich-Neuber, completes it by purely harmonic solutions of the Lamé equations and obtains

Card 2/3

Torsion of a Rectangular Bar by Forces Acting on   SOV/155-58-4-14/34
its Lateral Face

for u,v,w very long, explicitly given expressions with double
series in trigonometric and hyperbolic functions. The
coefficients must be calculated from infinite linear systems
of equations. It is asserted that, if the free terms of the
systems possess a certain order, the systems have a unique
solution.
There are 1 figure, and 4 references, 2 of which are Soviet,
1 Italian, and 1 American.
ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova
             (Moscow State University imeni M.V.Lomonosov)
SUBMITTED: June 4, 1958

Card 3/3

16(1) 16.7300

AUTHOR: Valov, G.M.   SOV/155-58-4-15/34

TITLE: The Problem of Equilibrium of a Rectangular Parallelepiped,
             on the Basal Surfaces of which the Normal Stresses and the
             Tangential Displacements, and on the Lateral Face of Which
             the Stresses are Given (Zadacha o ravnovesii pryamougol'nogo
             parallelepipeda, na osnovaniyakh kotorogo zadany normal'nyye
             napryazheniya i kasatel'nyye peremeshcheniya, a na bokovoy
             poverkhnosti - napryazheniya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye
             nauki, 1958, Nr 4, pp 87 - 92 (USSR)

ABSTRACT: The problem leads to the same system of equations as in the
             preceding paper of the author with somewhat other boundary
             conditions. The same way of solution is used and infinite
             systems for the calculation of coefficients are given.
             M.M. Filonenko-Borodich, Ye. S. Kononenko, and P.F. Penkovich
             are mentioned in the paper.
             There are 5 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova
             (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: June 4, 1958
Card 1/1

24.4100

69777

AUTHOR: Valov, G.M.

S/155/59/000/02/019/036

TITLE: The Problem of the Compression of a Rectangular Parallelepiped,
on the Basal Planes of Which the Normal Displacements and the Tangential
Stresses, and on the Lateral Surface of Which the Stresses are Given

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki,
1959, No. 2, pp. 107-112

TEXT: The author determines the projections of the displacement vector
$u(x,y,z)$, $v(x,y,z)$, $w(x,y,z)$, which in the rectangle $-a \le x \le a$, $-b \le y \le b$,
$-1 \le z \le 1$ satisfy the Lamé equations

(1) $$\frac{1}{1 - 2\sigma} \frac{\partial \theta}{\partial x} + \Delta u = 0 \quad \text{etc} ,$$

where θ is the volume deformation, Δ the Laplace operator and σ the Poisson
coefficient, while the boundary conditions mentioned in the title are satis-
fied on the surface of the rectangle. It is supposed that the deformation
is symmetric with respect to the planes $x = 0$ and $y = 0$, and that the
functions occurring in the boundary conditions are representable by Fourier
series. For the solution the author sets up u, v, w in the form of very com-
plicated double Fourier series with unknown coefficients. The series are
Card 1/2

69777

The Problem of the Compression of a Rectangular S/155/59/000/02/019/036
Parallelepiped on the Basal Planes of Which the Normal Displacements and the
Tangential Stresses, and on the Lateral Surface of Which the Stresses are
Given

chosen so that (1) and a part of the boundary conditions are immediately
satisfied. For the determination of the coefficients the residual boundary
conditions give an infinite system of equations which is regular and unique-
ly solvable, provided that the Fourier coefficients in the boundary con-
ditions decrease quickly enough.
M.M. Filonenko-Borodich and Ye.S. Kononenko are mentioned in the paper.
There are 9 references: 7 Soviet, 1 Chinese and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

SUBMITTED: January 12, 1959

Card 2/2

Vaiou, G.M.   PHASE I BOOK EXPLOITATION   SOV/6206 75

Konferentsiya po teorii plastin i obolochek. Kazan', 1960.

Trudy Konferentsii po teorii plastin i obolochek, 24-29 oktyabrya
    1960. (Transactions of the Conference on the Theory of Plates
    and Shells Held in Kazan', 24 to 29 October 1960). Kazan',
    [Izd-vo Kazanskogo gosudarstvennogo universiteta] 1961. 426 p.
    1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial; Kazanskiy
    gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina.

Editorial Board: Kh. M. Mushtari, Editor; F. S. Isanbayeva, Secretary;
    N. A. Alumyae, V. V. Bolotin, A. S. Vol'mir, N. S. Ganiyev,
    A. L. Gol'denveyzer, N. A. Kil'chevskiy, M. S. Kornishin,
    A. I. Lur'ye, G. N. Savin, A. V. Sachenkov, I. V. Svirskiy,
    R. G. Surkin, and A. P. Filippov. Ed.: V. I. Aleksagin;
    Tech. Ed.: Yu. P. Semenov.

PURPOSE: The collection of articles is intended for scientists and
    engineers who are interested in the analysis of strength and
    stability of shells.

Card 1/14

Transactions of the Conference (Cont.)   SOV/6206   75

COVERAGE: The book is a collection of articles delivered at the
    Conference on Plates and Shells held in Kazan' from 24 to 29
    October 1960. The articles deal with the mathematical theory
    of plates and shells and its application to the solution, in
    both linear and nonlinear formulations, of problems of bending,
    static and dynamic stability, and vibration of regular and
    sandwich plates and shells of various shapes under various
    loadings in the elastic and plastic regions. Analysis is made
    of the behavior of plates and shells in fluids, and the effect
    of creep of the material is considered. A number of papers
    discuss problems associated with the development of effective
    mathematical methods for solving problems in the theory of shells.
    Some of the reports propose algorithms for the solution of problems
    with the aid of electronic computers. A total of one hundred
    reports and notes were presented and discussed during the con-
    ference. The reports are arranged alphabetically (Russian) by
    the author's name.

Card 2/14

Card 4/14

S/124/63/000/002/032/052
D234/D308

AUTHOR: Valov, G.M.

TITLE: Bending of a thin rectangular cantilevered plate
                 by an arbitrarily distributed transverse load

                 Referativnyy zhurnal, Mekhanika, no. 2, 1963, 32-33,
                 abstract 2V186 [...]

TEXT: The deflection function of a cantilevered plate
                 with an arbitrary load is represented as a sum of two terms. The
                 ... these terms. In the final solu-

VALOV, G.M. (Kostroma)

A basic mixed problem in the theory of elasticity for a rectanglo. Izv.
AN SSSR. Otd. tekh. nauk. Mekh. i mashinostr. no.3:133-142 My-Je '61.
(MIRA 14:6)

(Elastic plates and shells)

VALOV, G.M. (Kostroma)

Axisymmetrical problem of the compression of an elastic circular
cylinder supported by an even rigid base. Izv.AN SSSR.Otd.tekh.-
nauk.Mekh.i mashinostr. no.6:151-154 N-D '61.   (MIRA 14:11)
                     (Elastic plates and shells)

VALOV, G.M. (Kostroma)

Elastic and thermoelastic axisymmetric deformation of an infinite
layer. Izv.AN SSSR. Mekh.i mashinostr. no.1:54-60 Ja-F '64.
(MIRA 17:4)

VALOV, G.M. (Kostroma)

Contact problem of an elastic and thermoelastic axisymmetric deforma-
tion of an infinite solid cylinder. Izv. AN SSSR. Mekh. no.5:60-67
S-O '65.
(MIRA 18:10)

VALOV, L. F.

VALOV, L. F. -- "Determination of Elements of Relative Orientation for Pictures of
Mountainous Regions." Sub 4 Apr 52, Moscow Inst of Engineers of Geodesy,
Aerial Photography and Cartography. (Dissertation for the Degree of Candidate
in Technical Sciences.)

SO: VECHERNAYA MOSKVA, January-December 1952

VALOV, L.F., kandidat tekhnicheskikh nauk.

Analytical determination of elements in reciprocal orientation
of photographs of a mountainous region. Trudy TSNIIGAIK no.105:
3-10 '55.   (MIRA 9:6)
        (Aerial photogrammetry)

BORDADYMOV, A.A.; BRODSKIY, M.B.; VALOV, M.S.

Changes occurring in the shoe upper sides. Kozh.-obuv. prom.
7 no.4:34 Ap '65.   (MIRA 18:6)

MEDZHIBOZHSKIY, M.Ya.; PRIVALOV, M.M.; GUROV, A.K.; MOKRUSHIN, V.V.;
    GRITSKOV, V.S.; Prinimali uchastiye: TSYMBAL, V.P.; BYCHKOV, P.M.;
KURGUZKIN, V.P.; VALOV, M.Ye.; SHCHEKOLKIN, M.S.

Making a combined use of compressed air in a high-capacity
open-hearth furnace. Stal' 22 no.10:894-900 O'62.   (MIRA 15:10)
        (Open-hearth furnaces)   (Compressed air)

ZYUZIN, Vladimir Ivanovich; GURVITS, A.I., red.; VALOV, N.A., red.;
  VAGIN, A.A., red.izd-va; ATTOPOVICH, M.K., tekhn.red.;
  MIKHAYLOVA, V.V., tekhn.red.

  [Mechanical equipment of metallurgical plants; manual for
  construction engineers and mechanics] Mekhanicheskoe oborudo-
  vanie metallurgicheskikh tsekhov; posobie dlia konstruktorov
  i mekhanikov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
  chernoi i tsvetnoi metallurgii, 1960. 334 p.
                                                    (MIRA 14:1)

      (Metallurgical plants--Equipment and supplies)
             (Rolling mills)

NESHCHERET, Illarion Illarionovich; VALOV, N.A., red.; SIDOROV, V.N.,
    red.izd-va; VAYNSHTEYN, Ye.B., tekhn.red.

[Mechanical equipment of sintering plants] Mekhanicheskoe
oborudovanie aglomeratsionnykh fabrik. Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 386 p.
                                            (MIRA 14:3)
    (Ore dressing--Equipment and supplies) (Sintering)

ROZOV, B.V., inzh.; BUDKOV, V.Ye., inzh.; VALOV, N.A., inzh.

Development and realization of safety measures for mining seams in
the Kizel Basin which are subject to bumps. [Trudy] VNIMI no.49:
164-180 '62.   (MIRA 17:4)

1. Kombinat Kizelugol' kizelovskogo kamennougol'nogo basseyna.

LEYSHMAN, M.B.; BALASHOV, M.Ye.; AFANAS'YEV, A.S.; MIKHELEV, V.M.;
     TAKHVANOV, G.I.; SHKHALAKHOV, Yu.Sh.; SANNIKOV, Yu.I.; SLAVIN, A.A.;
     BEYRAKH, Z.Ya.; KAPLINSKIY, B.I.; ORLOV, O.A.; PEVZNER, V.V.;
     VALOV, O.V.; KIREYEV, V.V.

     Inventions. Avtom. i prib. no.3:76-77 Jl-S '64.

                                              (MIRA 18:3)

ACC NR: AP6032585   SOURCE CODE: UR/0062/66/000/008/1334/1339

AUTHOR: Valov, P. I.; Blyumberg, E. A.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Kinetics and mechanism of the combined oxidation of propylene and acetaldehyde

TOPIC TAGS: combustion modifier, oxidation mechanism, free radical, oxidation inhibitor, oxidation kinetics, acetaldehyde, olefin
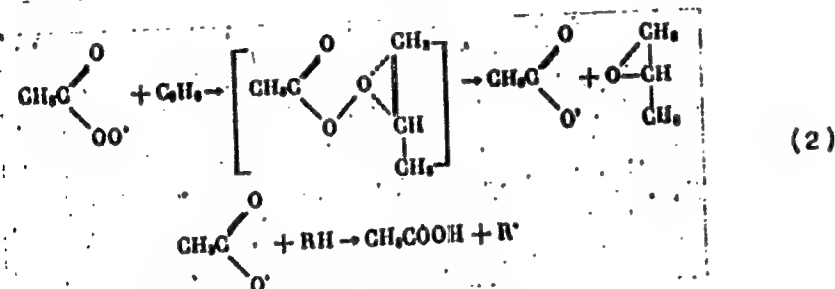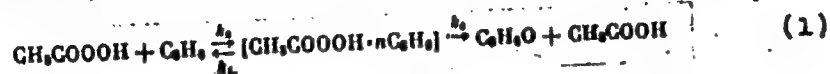
ABSTRACT: A study has been made of the kinetics and mechanism of the combined oxidation of an olefin and an aldehyde. This reaction was previously shown to be a step common to the mechanisms of oxidation of unsaturated hydrocarbons and of the combined oxidation of olefins and organic compounds of various classes. The reagents used were acetaldehyde, propylene, and air. The reaction was carried out in a special stainless steel autoclave at 70—80C and 50 atm. Under these conditions the reaction proceeds in the liquid phase. Reaction products were subjected to chemical and gas-liquid chromatographic analysis. It was

Card 1/4   UDC: 541.124+542.943

ACC NR: AP6032585

found that propylene oxide and acetic acid are the end products of the reaction; propylene glycol monoacetate is formed along with the propylene oxide. This was confirmed by control experiments in which some propylene oxide was added to the initial reagents. A reaction mechanism was postulated for the formation of propylene oxide:

$$CH_3COOOH + C_3H_6 \rightleftharpoons [CH_3COOOH \cdot nC_3H_6] \xrightarrow{h\nu} C_3H_6O + CH_3COOH \qquad (1)$$

(2)

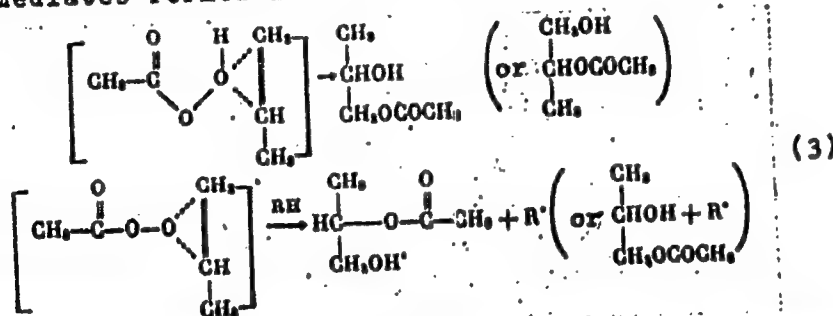$$CH_3C \cdot + RH \rightarrow CH_3COOH + R \cdot$$

To determine whether reaction (1) or (2) prevails, experiments were carried out in which an inhibitor (ionol) which reacts with free radicals was added to the reaction mixture at the moment corresponding to

Card 2/4

ACC NR: AP6032585

the maximum rate of formation of propylene oxide. On addition of the
inhibitor, acetaldehyde consumption and reaction product accumulation
virtually ceased; propylene oxide concentration increased only slightly.
This indicates that propylene oxide is formed mainly via free radicals
(reaction (2)). To determine the contribution of reaction (1), experi-
ments involving the reaction of peracetic acid with propylene were
carried out; the rate of formation of propylene oxide was found to be
about 15% of its maximum rate of formation in the reaction of interest.
It was concluded that the principal epoxidizing agent in the combined
oxidation of unsaturated compounds and aldehydes is the acetyl peroxide
radical, $RC{=}O{-}OO$; rather than the corresponding peracid. It was also
postulated that propylene glycol is formed via the isomerization of the
complex intermediates formed in reactions (1) and (2):

(3)

Card 3/4

ACC NR: AP6032585

Thus the reactions of formation of propylene oxide and propylene glycol
monoacetate represent an alternate course of the chain propagation
reaction, which is simultaneous to the reaction RO_2 + acetaldehyde.
This paper represents P. I. Valov's dissertation. Orig. art. has:
4 figures.   [WA-68]

SUB CODE: 07,21/   SUBM DATE: 03Feb66/   ORIG REF: 005/
OTH REF: 001

Card 4/4

L 0126-67   ENT(m) ENT(j)   RM

ACC NR: AP6011656   SOURCE CODE: UR/0020/66/167/003/0579/0582

31
B

AUTHOR: Blyumberg, E. A.; Valov, P. I.; Norikov, Yu. D.; Emanuel', N. M.
(Corresponding member AN SSSR)

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimi heskoy fiziki
Akademii nauk SSSR)

TITLE: Co-oxidation of unsaturated hydrocarbons and other organic compounds as a method
of synthesizing oxides of olefins

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 579-582

TOPIC TAGS: organic oxide, olefin, aldehyde, methyl ethyl ketone, aromatic hydrocarbon,
organic synthetic process

ABSTRACT: The report describes in general terms a procedure for direct derivation of olefin
oxides through the cooxidation of unsaturated hydrocarbons and other organic compounds oxi-
dizing more readily than the olefin involved. The process utilizes the active oxygen of perox-
ide radicals and hydroperoxides which comprise the primary intermediate products of oxidation
of organic compounds. Aldehydes, methylethylketone, and alkylaromatic and paraffin hydro-
carbons were employed in systems with propylene, isobutylene, and ethylene. Olefin oxides

UDC: 542.91+541.128.2

Card 1/2

L 0120-66

ACC NR: AP6011656   O

were obtained in all cases. Aldehydes and methylethylketone gave best yields. Peroxide radicals RO_2 comprised the primary epoxydizing agent. Orig. art. has: 1 table and 4 figures.

SUB CODE: 07/ SUBM DATE: 04Oct65/ ORIG REF: 006/ OTH REF: 002

Card   2/2

ACC NR: AP6032585   SOURCE CODE: UR/0062/66/000/008/1334/1339

AUTHOR: Valov, P. I.; Blyumberg, E. A.; Emanuel', N. M.

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Kinetics and mechanism of the combined oxidation of propylene and acetaldehyde

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1966, 1334-1339

TOPIC TAGS: combustion modifier, oxidation mechanism, free radical, oxidation inhibitor, oxidation kinetics, acetaldehyde, olefin
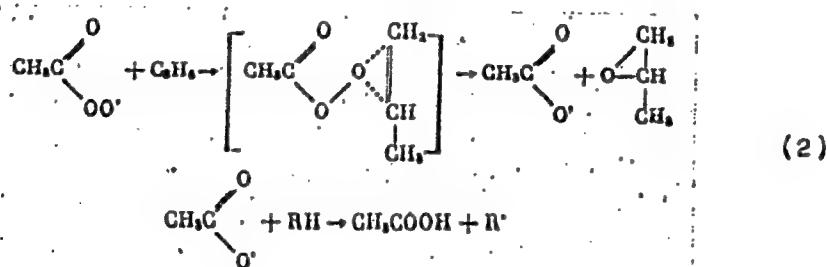
ABSTRACT: A study has been made of the kinetics and mechanism of the combined oxidation of an olefin and an aldehyde. This reaction was previously shown to be a step common to the mechanisms of oxidation of unsaturated hydrocarbons and of the combined oxidation of olefins and organic compounds of various classes. The reagents used were acetaldehyde, propylene, and air. The reaction was carried out in a special stainless steel autoclave at 70—80C and 50 atm. Under these conditions the reaction proceeds in the liquid phase. Reaction products were subjected to chemical and gas-liquid chromatographic analysis. It was

Card 1/4   UDC: 541.124+542.943

ACC NR: AP6032585

found that propylene oxide and acetic acid are the end products of the
reaction; propylene glycol monoacetate is formed along with the pro-
pylene oxide. This was confirmed by control experiments in which some
propylene oxide was added to the initial reagents. A reaction mech-
anism was postulated for the formation of propylene oxide:

$$CH_3COOOH + C_3H_6 \underset{k_{-1}}{\overset{k_1}{\rightleftharpoons}} [CH_3COOOH \cdot nC_3H_6] \overset{k_2}{\rightarrow} C_3H_6O + CH_3COOH \qquad (1)$$
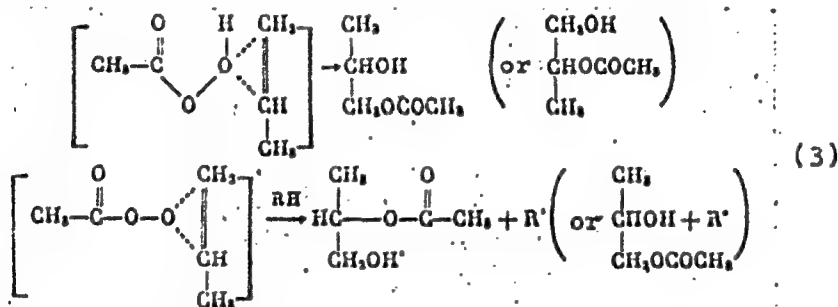

(2)

To determine whether reaction (1) or (2) prevails, experiments were
carried out in which an inhibitor (ionol) which reacts with free rad-
icals was added to the reaction mixture at the moment corresponding to

Card 2/4

ACC NR: AP6032585

the maximum rate of formation of propylene oxide. On addition of the
inhibitor, acetaldehyde consumption and reaction product accumulation
virtually ceased; propylene oxide concentration increased only slightly.
This indicates that propylene oxide is formed mainly via free radicals
(reaction (2)). To determine the contribution of reaction (1), experi-
ments involving the reaction of peracetic acid with propylene were
carried out; the rate of formation of propylene oxide was found to be
about 15% of its maximum rate of formation in the reaction of interest.
It was concluded that the principal epoxidizing agent in the combined
oxidation of unsaturated compounds and aldehydes is the acetyl peroxide
radical, $RC{\overset{=O}{\underset{OO}{}}}$; rather than the corresponding peracid. It was also.
postulated that propylene glycol is formed via the isomerization of the
complex intermediates formed in reactions (1) and (2):

(3)

Card 3/4

ACC NR: AP6032585

Thus the reactions of formation of propylene oxide and propylene glycol
monoacetate represent an alternate course of the chain propagation
reaction, which is simultaneous to the reaction RO_2 + acetaldehyde.
This paper represents P. I. Valov's dissertation. Orig. art. has:
4 figures. [WA-68]

SUB CODE: 07,21/ SUBM DATE: 03Feb66/ ORIG REF: 005/
OTH REF: 001

Card 4/4

GIL'BERT, E.N.; PRONIN, V.A.; ARTYUKHIN, P.I.; VALOV, P.M.

Extraction separation of carrier-free Co^{57} from an irradiated target.
Radiokhimiia 7 no.3:358-359 '65.   (MIRA 18:7)

L 13714-63   B.I. ....
ACCESSION NR: AT3003080   S/.... ....

AUTHOR: Krasil'shchikov, I. I.; Valov, ... M.

TITLE: Radioactive method for measuring heat deformations. Author's Certificate
No. 115077, cl. ....

SOURCE: Sbornik izobreteniy; priborostroyeniye i sredstva avtomatizatsii. Kom. po
delam izobr. i otkry*tiy. Moscow, Tsentr. byuro tekhn. inform., 19.., ...

TOPIC TAGS: heat deformation, radioactivity measurement, gas turbine, emitter,
detector, counter

ABSTRACT: This is a description of a radioactive method for measuring heat deforma-
tions occurring between the stationary and the revolving parts of gas turbines and
other engines. Heat deformations ... between a radioactive emitter
placed on a revolving part ... ... the stationary part. This, in
turn, changes the dihedral angle ... particles registered by the
detector. Since the apparatus ... ... temperature and pres-
sure ... detector is ... ...

... ...
is protected by a shaped weigh against ... position. Orig. art. has 1
figure.
Card 1/3|

VALOV, P.M.; SOKOLOVA, V.K.; VILENSKIY, A.G.; VAYNSHTEYN, E.Ye.

Unit for measuring Mössbauer spectra. Prib. i tekh.eksp. 10
no.5:161-163 S-O '65.   (MIRA 19:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,
Novosibirsk. Submitted August 22, 1964.

VALOV, V.S.

Diagrammatic maps of the economic types of agricultural settlement.
Geog. v shkole 21 no. 4:6-15 Jl-Ag '58.   (MIRA 11:7)
(Agriculture--Maps)
(Land settlement)

VALOV, V.S.

Survey map of rural settlement in the U.S.S.R. Vop.geog.
no.45:138-149 '59.   (MIRA 12:5)
            (Land settlement)

VALOV, V.S.

Changes in the geography of rural settlement in the old populated
districts of the Virgin Territory; based on the example of
Fedorovskiy District, Kustanay Province. Geog. i khoz.
no.12:13-18 '63.   (MIRA 16:12)

Card 1/2

application —47
the periodic system of elements — 59   production of semiconducting

semiconducting materials

ODR: EC

OTHER: 260

NO REF SOV: 062

card 2/

L 6509-66   EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c)   IJP(c)   JD/GG
ACCESSION NR: AP5019425   UR/0020/65/163/003/0606/0608

AUTHOR: Belle, M. L.; Valov, Yu. A.; Goryunova, A. N.; Zlatkin, L. B.; Imenkov, A.
N.; Kozlov, M. M.; Tsarenkov, B. V.

TITLE: Optical and photoelectric properties of single-crystal $ZnSiP_2$

SOURCE: AN SSSR. Doklady, v. 163, no. 3, 1965, 606-608

TOPIC TAGS: optical property, photoelectric property, zinc compound optic material,
forbidden band, light polarization, absorption edge, temperature dependence

ABSTRACT: In view of the lack of published data on this compound, the authors have
studied the photoelectric and optical properties of n-type single crystals obt ined
from the gas phase by the method of gas-transport reactions. The spectral sen: -
tivity of the photoconductivity was measured at 77 and 300K using a setup com-
prising a tungsten incandescent lamp, a light interrupter, a monochromator (IKS-21),
amplifier (V2-6), synchronous detector, and electronic potentiometer (EPP-09). The
absorption spectrum was measured with the spectrograph and a camera at 300, 77, and
4.2K. In addition, the authors investigated the influence of polarization of the
incident light on both the optical and photoelectrical properties. Photoconductiv-
ity was observed at incident photon energies 0.5--2.5 ev. At 300K the photocon-
ductivity has a highly peaked maximum at 2.14 ev, and also maxima at 0.8 and 1.0

Card 1/2

L 6509-66
ACCESSION NR: AP5019425

ev, attributed to impurities. At 77K the maxima shift to 2.19, 1.04, and 0.84 respectively. The spectral photoconductivity curve exhibited also some kinks due to transitions of the electrons from the valence to the conduction band. Polarization began to affect the photoconductivity only above 2 ev, when the photoconductivity became highly sensitive to the direction of the electric vector. This may be due to anisotropy of the crystal. Not all crystals showed a sharp absorption edge, a fact attributed to the number of crystal defects. Where a sharp absorption edge was observed, it showed a dependence on the temperature and on the polarization. The maxima of the photoconductivity and the start of the strong optical absorption were very close to each other, and the sharpness of the absorption edge suggests the presence of direct interband transitions in $ZnSiP_2$. The forbidden band is estimated at 2.13 ev at 300K and between 2.2 and 2.25 ev at 77K. Two absorption bands are observed at 2.23 and 2.27 ev at 77 and 4.2K, and their origin is not clear. This report was presented by L. A. Artsimovich. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences SSSR)

SUBMITTED: 17Nov64   ENCL: 00   SUB CODE: OP, SS

NR REF SOV: 002   OTHER: 001

Card 2/2

L 46579-66   EWT(m)/T/EWP(t)/ETI   IJP(c)   JG/JD

ACC NR: AR6017262   SOURCE CODE: UR/0058/65/000/012/E047/E048

AUTHOR: Goryunova, N. A.; Valov, Yu. A.; Zlatkin, L. B.

TITLE: Production and investigation of the properties of single crystals of ZnSiP$_2$, the ternary analog of gallium phosphide

SOURCE: Ref. zh. Fizika, Abs. 12E365

REF SOURCE: Sb. Fizika. Dokl. k XXIII Nauchn. konferentsii Leningr. inzh.-stroit. in-ta. L., 1965, 18-21

TOPIC TAGS: single crystal growing, alloy system, forbidden band, absorption edge, photoconductivity, spectral energy distribution, valence band, conduction band, electron transition

ABSTRACT: A gas transport method was used to obtain light red p- and n-type needle-like ZnSiP$_2$ crystals up to 10 mm long, and plate-like crystals measuring 6 x 1.5 x 0.1 - 0.3 mm. The crystal growth direction [111] coincides with the tetragonal c axis. Measurements were made of the absorption edge at 300, 77, and 4.2K of the spectral sensitivity of the photoconductivity at 300 and 77K, and of the dependence of the photoconductivity on the polarization of the exciting radiation. The sharp photoconductivity and absorption edge gives grounds for assuming the presence of direct transitions of the electrons from the valence band to the conduction band. The width of the forbidden band at 300° is ~2.13 ev. A. Porotikov. [Translation of abstract]

SUB CODE: 20

Card 1/1   hs

ACC NR: AP6036797   (A)   SOURCE CODE: UR/0363/66/002/011/2078/2079

AUTHOR: Bychkov, A. G.; Plechko, R. L.; Valov, Yu. A.; Goryunova, N. A.

ORG: Physico-technical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Some physical properties of the semiconducting compound $CdSiP_2$

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 11, 1966, 2078-2079

TOPIC TAGS: semiconductor alloy, cadmium containing alloy, silicon containing alloy, phosphorus alloy

ABSTRACT: Experiments were carried out on the production of single crystals of $CdSiP_2$ from metallic solution melts, as well as with the aid of chemical transport reactions, in which the source of the material was a ternary compound obtained from the solution melt, and in which the transport agent was iodine. By the solution method there were produced concretions of thin flat crystals, from which were cut single crystal samples with dimensions of 2 x 1.5 x 0.1 mm. By chemical transport reactions, there were produced thin needles with a length up to 10 mm, and thin plates (4 x 1.5 x 0.05 mm). The crystals of $CdSiP_2$ are soluble in concentrated acids and have a rather low thermal stability (their dissociation in vacuum at a pressure of 5×10^{-4} mm Hg starts at a

Card 1/2   UDC: 546.48'28'181:537.311.33

ACC NR: AP6036797

temperature of 450°C). All of the samples were found to have a conductivity of the n-type. In the samples grown from the solution melt, the following properties were determined (at room temperature): conductivity $\sigma \approx 5 \times 10^{-3}$ ohm^{-1}-cm^{-1}; mobility of the electrons $u = 150$ cm^2-v^{-1}-sec^{-1}; concentration of current carriers $n = 10^{15}$ cm^{-3}. With an increase in temperature there is a sharp drop in the Hall constant. With an increase in temperature, the conductivity increases, but the mobility of the current carriers falls, starting at 400°K. The samples obtained with the aid of chemical transport reactions had a conductivity of the order of $10^{-6} - 10^{-7}$ ohm^{-1}-cm^{-1}. An investigation of the spectral distribution of the photoconductivity at room temperature was made for both types of samples. For crystals grown from a solution melt, the maximum of photoconductivity was observed at a photon energy of 2.5 ov, while for crystals produced by chemical transport reactions, it was at 2.38 ov. The width of the forbidden zone for CdSiP$_2$ was determined, respectively, as 2.34 ov for crystals grown from solution melts, and 2.25 for crystals produced with the aid of chemical transport reactions. Orig. art. has: 1 figure.

SUB CODE: 20,07/ SUBM DATE: 25Jan66/ ORIG REF: 003/ OTH REF: 002

Card 2/2

L 08335-67   EWT(m)/EWP(t)/ETI   IJP(c)   JD

ACC NR: AR6017150   SOURCE CODE: UR/0275/66/000/001/B009/B009

AUTHOR: Goryunova, N. A.; Valov, Yu. A.; Zlatkin, L. B.

TITLE: Generation and analysis of the properties of ZnSiP$_2$

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 1B65

REF SOURCE: Sb. Fizika. Dokl. k XXIII Nauchn. konferentsii Leningr. inzh.-stroit. in-ta. L., 1965, 18-21

TOPIC TAGS: single crystal, semiconductor crystal, crystal absorption, single crystal growth, crystal theory, gallium arsenide

TRANSLATION: Using the gas transport method, light red, needle-shaped, ZnSiP$_2$ crystals up to 10 mm in length, and plate-like crystals 6 × 1.5 × 0.1 to 0.3 mm were obtained. The direction of crystal (111) growth coincides with the tetragonal axis c. The following parameters were measured: the absorption region at 300, 77 and 4.2°K, the spectral sensitivity of photoconductivity at 300 and 77°K. A relation between the photoconductivity and the polarization of the excitation radiation was found to exist. Sharply defined regions of photoconductivity and absorption suggests direct transitions of electrons from the valency into the conductivity zone. The forbidden zone has a width of approximately 2.13 ev at 300°K.

SUB CODE: 20

UDC: 539.293:546.47.'28'18

Card 1/1   nst

VALOV, Yu.N., inzh.

Use of insulating transformer oils in a municipal electric
power distribution network. Elek. sta. 35 no.2:51-55 F '64.
(MIRA 17:6)

ACC NR: AF6036786   (N)   SOURCE CODE: UR/0363/66/002/011/1966/1969

AUTHOR: Loshakova, G. V.; Plechko, R. L.; Vaypolin, A. A.; Pavlov, B. V.; Valov, Yu. V.; Goryunova, N. A.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tekhnicheskiy institut AN SSSR); Kiev Pedagogic Institute (Kievskiy pedagogicheskiy institut)

TITLE: Production and some properties of the semiconductor compounds $ZnSnP_2$ and $CdSnP_2$

TOPIC TAGS: zinc containing alloy, tin containing alloy, cadmium containing alloy, phosphorus containing alloy, semiconductor alloy

ABSTRACT: Previous attempts to obtain $ZnSnP_2$ from a mixture of components taken in stoichiometric ratio yielded a product containing a mixture of phases, including the ternary compound $ZnSnP_2$, but also zinc and tin phosphides. The present article describes a method for producing single phase $ZnSnP_2$ by crystallization from a dilute solution in tin. The initial weighed portion consisted of zinc, tin, and phosphorus, in which the tin was taken in large excess over the stoichiometric amount. After heating to a temperature of 870°C and slow cooling in an evacuated quartz ampoule, the.

UDC: 537.311.33

Card 1/2

ACC NR: AP6036786

$ZnSnP_2$ was separated from the tin. The remaining thin film of tin on the $ZnSnP_2$ crystals was dissolved in concentrated nitric acid. The crystals of $ZnSnP_2$ were a dark gray color, and were 3 x 1, 5 x 0.5 mm in size. Analogous experiments with $CdSnP_2$ showed that it could be produced from a dilute solution in cadmium. X ray analysis of the compounds obtained made it possible to determine the type of crystal structure, the lattice constants, and the microhardness; these values are listed in tabular form. It was shown also that $ZnSnP_2$ has a considerable amount of chemical resistance to a number of mineral acids, including nitric, hydrochloric, sulfuric, and hydrofluoric, while $CdSnP_2$ has very little resistance to these acids. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 11, 20/ SUBM DATE: 23Dec65/ ORIG REF: 001/ OTH REF: 002

Card 2/2

CZECHOSLOVAKIA   UDC   616-007.21:616.5-085.361.43(:547.92)-039.77

STERBA, R.; VALOVA, B.; Research Institute of Natural Drugs (Vyz-
kumny Ustav Prirodnich Leciv), Prague - Hloubetin, Director (Redi-
tel) Docent Dr Z. CEKAN

"Configuration and Cosmetic Effects of Steroid Mixtures."

Prague, Casopis Lekaru Ceskych, Vol 106, No 9, 3 Mar 67, pp
236 - 238

Abstract /Authors' English summary modified 7: Changes in the ap-
pearance of women using peroral contraceptive estro-progestational
mixtures are described and documented photographically. The mix-
tures were administered at a higher dose in primary mammary hypo-
plasia and in secondary weakness of the breasts with a surprisingly
good effect. The result induced the authors to use tri-hormonal
estro-progestational-anabolic mixtures in the treatment of severe
inanition and weakness in women following psychic traumatism and
physical exhaustion. Good effects in the treatment of acne vul-
garis and postulosa were also obtained. 3 Figures, 1 Table, 4
Western, 4 Czech references. (Manuscript received Jun 66).

1/1

V A L O V A, B.

STERBA, Rudolf   CZECHOSLOVAKIA

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(Presumably) Research Institute for Natural Medicaments
(Vyzkumny ustav prirodnich leciv), Prague; Director:
Z. Cekan, Dr.

Prague, <u>Prakticky Lekar</u>, No. 19, 1962, pp 842-846

"Final Report on Clinical Study of New Corticoids"

    Co-authors:

    KÜCHEL, Oto, MD, same as above, or III Internal
        Clinic of the Faculty of General Medicine of
        KU (Charles University - Karlova Univeralta),
        Prague; Director: Academician J. Charvat
    VALOVA, Blanka, Grad. mathematician, same as above

STERBA, R., Praha-Hloubetin, U Elektry 8; VALOVA, B.

One year experience with the preparation Antigest. Cesk. gynek, 30 no.8:605-610 O '65.

1. Vyzkum. ustav prirod. leciv v Praze (reditel doc. dr. Z. Cekan, CSc.). Submitted May 31, 1965.

WIDIMSKY, J.; KASALICKY, J.; DEJDAR, R.; with the technical assistance
of: VALOVA, E.

Resting central haemodynamics in silicosis. Cor vasa 5 no.4:
252-263 '63.

1. Institute for Cardiovascular Research, Prague.
       (SILICOSIS)   (ANOXEMIA)
       (HYPERTENSION, PULMONARY)
       (PULMONARY HEART DISEASE)
       (BLOOD CIRCULATION)
       (HEART CATHETERIZATION)

WIDIMSKY, J.; KASALICKY, J.; DEJDAR, R.; ZAJIC, F. Technical assistance:
VALOVA,E.; JOZIFKOVA, B.; TROUSIL, V.

Central haemodynamics during muscular exercise in subjects
with normal heart and lungs. Cor vasa 7 no.2:143-149 '65

1. Institute for Cardiovascular Research, Czechoslovakia.

BOGUSLAVSKAYA. K.V.; VALOVA, G.M.; GRISHCHUK. N.F.; DROZD. L.G.; KOLOBENIN, V.N.;
     PRYAKHINA, S.F.; SOKOLOV, V.D.; BOGUSLAVSKIY, D.B.

     Single-stage manufacture of carcass compounds with the addition of
     sulfur during processing in the rubber mixer. Kauch. i rez. 24
     no.10:12-14 '65.   (MIRA 18:10)

     1. Dnepropetrovskiy shinnyy zavod i Dnepropetrovskiy filial Nauchno-
     issledovatel'skogo instituta shinnoy promyshlennosti.

VALOVA, I.I., assistent

Changes in some liver functions in relation to the treatment
with the Sosnevskiy mineral water. Sbor. nauch. trud. Ivan. gos.
med. inst. no.25:102-104 '62.
(MIRA 17:5)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof.
G.V. Nikolayeva) i kafedry patologicheskoy fiziologii (zav. -
prof. S.S. Poltyrev) Ivanovskogo gosudarstvennogo meditsinskogo
instituta (rektor - dotsent Ya.M. Romanov).

CHUDAKOV, K.P., kand.tekhn.nauk; PETROV, I.V., inzh.; VALOVA, L.S., inzh.

Investigating the efficiency of building-up materials under
dynamic abrasive wear conditions. Vest.mashinostr. 43 no.8:
25-29 Ag '63.

(MIRA 16:9)

(Metals--Testing)

CHUDAKOV, K.P., kand. tekhn. nauk; VALOVA, L.S., inzh.; ALFEROVA, T.I., inzh.;
    ALFEROVA, Yu.A.; FEYGIN, L.; BONDAROVICH, B.A., inzh.;
    GONCHARENKO, V.T.

    Prolong the life of excavators. Stroi. i dor. mash. 8 no.3:
    8-14 Mr '63.   (MIRA 16:5)

VALOVA, MILENA

VALOVA, Milena; REJCHRT, Blahoslav

Treatment of caustic injuries of the eye with subconjunctival injections of patient's own blood with penicillin. Cesk. ofth. 13 no.5:383-387 Sept 57.

1. Ocni oddeleni KUNZ v Karlovych Varech, prednosta prim. MUDr. Blah. Rejechrt.
        (EYE, wds. & inj.
                caustic burns, auto-hemother. with penicillin, subcon-
                junctival admin. (Cz))
        (PENICILLIN, ther. use
                caustic burns of eye, subconjunctival admin. with
                auto-hemother. (Cz))
        (SEROTHERAPY, in v_nr. dis.
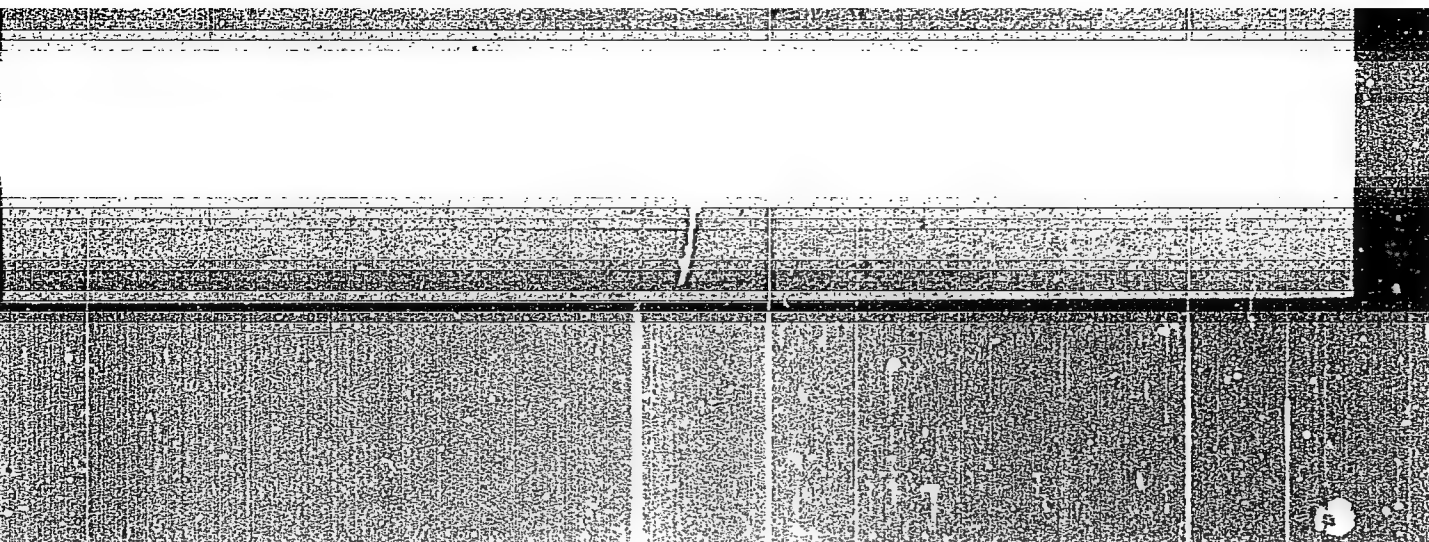   auto-hemother. of caustic burns of eye, with subcon-
                junctival admin. of penicillin. (Cz))
        (BURNS, ther.
                caustic burns of eye, auto-hemother. with subcon-
                junctival admin. of penicillin (Cz))

SHUMEYKO, A.K.; KENIN, S.L.; VALOVA, N.V.; ROZENOYER, A.A.

Separation of pure alcohols from a mixture by means of boric esters. Trudy VNIISNDV no.6:19-21 '63.   (MIRA 17:4)

KIRSANOV, N.V.; ZALEZNYAK, P.N.; FREYMAN, A.V.; SADYKOVA. V.N.; VALOVA, Ye.P.

Use of bentonite in the manufacture of technical dipped rubber
goods. Kauch. i rez. 24 no.10:49-50 '65.   (MIRA 18:10)

1. Kazanskiy geologicheskiy institut i Kazanskiy zavod rezinovykh
takhnicheskikh izdeliy.

VOROB'YEV, D.P.; VALOVA, Z.G.

Pueraria hirsuta (Thunb.) C.K. Schn. a new woody liana in the
U.S.S.R. Bot. zhur 47 no.8:1194-1196 Ag '62.   (MIRA 15:10)

1. Dal'nevostochnyy Filial Sibirskogo otdeleniya AN SSSR,
Vladivostok.
          (Khasanskiy District—Pueraria)

VALOVA, Z.G.

Phenology of the Arundinella-type-thin forest oak Quercus
dentata in the southern part of Khasan District. Soob.
DVFAN SSSR no.19:109-112   '63.   (MIRA 17:9)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya
AN SSSR.

VALOVA, Z.G.

New genus and a new species for the flora of the U.S.S.R. Bot.zhur. 48
no.2:270-271 F '63.   (MIRA 16:4)
                        (Zoysia)

VALOVA, Z.G.

Some characteristics of the flora and vegetation of southern
Khasan District. Komar. chten. (DVFAN) no.12:26-45 '64.
(MIRA 18:11)

VALOVEL'SKIY, L,N.

Letter to the editor. Med. prcm. 15 no.9:64 S '61. (MIRA 14:9)
(CORTISONE)